REMARKS/ARGUMENTS

Claims 1-11 are pending in this application.

Claims 1-6 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Katsuta (JP 2000-261284). Claims 7-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Katsuta in view of Suga et al. (US 2002/0140322). Applicant respectfully traverses the rejections of Claims 1-11.

Claim 1 recites:

> "An electronic component comprising:
> a substrate:
> at least one piezoelectric vibrating portion and a connecting portion provided on the substrate; and
> **a structural piece made of a resin material having a flat plate shape and directly covering at least the at least one piezoelectric vibrating portion such that no structural elements are disposed between the structural piece and the at least one piezoelectric vibrating portion**; wherein
> the structural piece has an integrated structure and is provided with a concavity including a top portion and side walls covering the at least one piezoelectric vibrating portion, the concavity defining a space so as not to disturb at least the vibration of the piezoelectric vibrating portion."
> (emphasis added)

With the unique combination and arrangement of features recited in Applicant's Claim 1, including the feature of "a structural piece made of a resin material having a flat plate shape and directly covering at least the at least one piezoelectric vibrating portion such that no structural elements are disposed between the structural piece and the at least one piezoelectric vibrating portion," Applicant has been able to provide an electronic component having a reduced height and size. In addition, the structural piece can be mounted on the substrate so as to cross the wiring disposed on the substrate, thus, enabling the chip size to be greatly reduced (see, for example, the third full paragraph on page 4 of the originally filed specification).

In the fourth paragraph on page 3 of the outstanding Office Action, the Examiner acknowledged that Katsuta fails to teach or suggest the feature of "no structural elements are disposed between the structural piece and the at least one piezoelectric

vibrating portion." However, the Examiner alleged that it would have been obvious "to omit said structural piece, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art." The Examiner relied upon *In re Karlson*, 136 USPQ 184 (CCPA 1963) to support this allegation. Applicant respectfully disagrees.

In Katsuta, the resin material 6, which the Examiner alleged corresponds to the structural piece recited in Applicant's Claim 1, is disposed on the protective cover 4, such that the protective cover 4 is **disposed between** the resin material 6 and the piezoelectric vibrating portion 2 (see, for example, Fig. 1 of Katsuta). Thus, the protective cover 4 of Katsuta would have to be removed in order for Applicant's claimed feature of "no structural elements are disposed between the structural piece and the at least one piezoelectric vibrating portion" to be true in the device of Katsuta.

The protective cover 4 of Katsuta is disclosed as being made of a conductive material and providing the function of shielding the piezoelectric vibrating portion 2 from electric waves which could disturb the operation of the device, such that the operation of the device is stabilized (see, for example, paragraph [0019] of the English machine translation of Katsuta). In addition, the protective cover 4 of Katsuta is provided with concavities, as seen in Fig. 1 of Katsuta, so as to maintain a gap G between the protective cover 4 and the piezoelectric vibrating portion 2, such that the vibration of the piezoelectric vibrating portion 2 is not interfered with.

Thus, the protective cover 4 of Katsuta provides the functions of (1) shielding the piezoelectric vibrating portion 2 from electric waves such that the operation of the device is stabilized, and (2) maintaining a gap G between the protective cover 4 and the piezoelectric vibrating portion 2 such that the vibration of the piezoelectric vibrating portion 2 is not interfered with.

If, as alleged by the Examiner, the protective cover 4 of Katsuta were omitted, no other elements disclosed in Katsuta would perform the same functions as the protective cover 4. Particularly, the resin material 6 of Katsuta is clearly incapable of shielding the

piezoelectric vibrating portion 2 from electric waves because the resin material 6 is not made of a conductive material. In addition, Katsuta fails to teach or suggest any physical properties of the resin material 6, and certainly fails to teach or suggest that the resin material 6 has sufficient rigidity to maintain the gap G so as not to interfere with the vibration of the piezoelectric vibrating portion 2.

Thus, if the protective cover 4 of Katsuta were omitted, then the functions of (1) shielding the piezoelectric vibrating portion 2 from electric waves such that the operation of the device is stabilized, and (2) maintaining a gap G between the protective cover 4 and the piezoelectric vibrating portion 2 such that the vibration of the piezoelectric vibrating portion 2 is not interfered with, would not be performed.

Furthermore, paragraph [0013] of the English machine translation of Katsuta discloses that a particularly important characteristic of the invention disclosed therein is the protective cover 4. Thus, the protective cover 4 of Katsuta certainly could not merely be omitted from the device of Katsuta, as alleged by the Examiner, because it is a critical and necessary element of the device of Katsuta.

As for the Examiner's reliance on *In re Karlson*, 136 USPQ 184 (CCPA 1963) for the principle that omission of an element and its function involves only routine skill in the art, Applicant notes the court has also recognized that this is not a mechanical rule, and that the language in *Karlson* was not intended to short circuit the determination of obviousness mandated by 35 U.S.C. § 103. *In re Wright*, 343 F.2d 761, 769-70, 145 USPQ 182, 190 (CCPA 1965).

The Examiner is reminded that prior art rejections must be based on evidence. Graham v. John Deere Co., 383 U.S. 117 (1966). The Examiner is hereby requested to cite a reference in support of his position that it was well known at the time of Applicants' invention to provide the feature of "a structural piece made of a resin material having a flat plate shape and directly covering at least the at least one piezoelectric vibrating portion such that no structural elements are disposed between the structural piece and the at least one piezoelectric vibrating portion" as recited in Applicant's Claim 1. If the rejection is based on facts within the personal knowledge of

the Examiner, the data should be supported as specifically as possible and the rejection must be supported by an affidavit from the Examiner, which would be subject to contradiction or explanation by affidavit of Applicants or other persons. See 37 C.F.R. § 1.104(d)(2).

Here, the Examiner's reliance on *In re Karlson* is clearly misplaced with regard to the present factual situation. Contrary to the facts presented in *In re Karlson* in which certain elements and their functions are removed and the retained elements perform the same functions as before, the function of the protective cover 4 of Katsuta of maintaining the gap so as not to interfere with the vibration thereof is retained in Applicant's claimed invention. In other words, Applicant's claimed invention is reconfigured to perform the function of the protective cover by providing for the gap with the structural piece recited in Applicant's Claim 1. The court has held that the omission of an element and the retention of its function is an indicia of unobviousness. *In re Edge*, 359 F.2d 896, 899, 149 USPQ 556, 557 (CCPA 1966).

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Katsuta.

The Examiner relied upon Suga et al. to allegedly cure deficiencies of Katsuta. However, Suga et al. clearly fails to teach or suggest the feature of "a structural piece made of a resin material having a flat plate shape and directly covering at least the at least one piezoelectric vibrating portion such that no structural elements are disposed between the structural piece and the at least one piezoelectric vibrating portion" as recited in Applicant's Claim 1. Thus, Applicant respectfully submits that Suga et al. fails to cure the deficiencies of Katsuta described above.

Accordingly, Applicant respectfully submits that Katsuta and Suga et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in Applicant's Claim 1.

In view of the foregoing remarks, Applicant respectfully submits that Claim 1 is allowable. Claims 2-11 depend upon Claim 1, and are therefore allowable for at least the reasons that Claim 1 is allowable.

In view of the foregoing remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicant petitions the Commissioner for a One-Month Extension of Time, extending to June 19, 2006 (June 17, 2006 falls on a Saturday) the period for response to the Office Action dated February 17, 2006.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Dated: June 19, 2006

/Christopher A. Bennett #46,710/
Attorneys for Applicant(s)

KEATING & BENNETT, LLP
8180 Greensboro Drive, Suite 850
Tyson's Corner, VA 22102
Telephone: (703) 637-1480
Facsimile: (703) 637-1499

Joseph R. Keating
Registration No. 37,368

Christopher A. Bennett
Registration No. 46,710